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EXAMINER

ANDREWS, LEON T

ART UNIT

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2616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/710,418

Applicant(s)

JIANG, SAM SHIAW-SHIANG

Examiner

LEON ANDREWS

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 4/9/2008.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

- Applicant's amendment filed March 13, 2008.
- Claim 1 was amended.
- Examiner's rejection to claims 1-17 is not withdrawn.

1. **Claims 1-17** are rejected under 35 U.S.C. 102 (e) as being unpatentable by Johansson et al. (Patent No.: US 6,947,394 B1).

Regarding Claim 1, Johansson et al. discloses a method (method, column 3, line 13) for determining a need of an updated status report (receiving side is polled and sends a status report, column 5, lines 42-43) by a receiver (Fig. 1, UE 16) in a communications system (communications system, column 1, lines 17-18), the communications system including a receiver (Fig. 1, UE 16) and a sender (Fig.1, UE 12) wherein data is communicated by acknowledged mode data (AMD) protocol data units (PDUs) (Fig. 1, AMD PDU 14), the method comprising:

the receiver:

sending a first status report to the sender in response to a first trigger (receiving side sends a status report to the transmitting entity if the receiving side receives a poll (trigger), column 5, lines 42-43);

initiating a roundtrip timer (receiver sends S-PDU to the transmitter and sets the EPC where the EPC timer controls the maximum amount of time that the EPC has to wait before it starts counting down, column 5, lines 49-52);

after expiry of the roundtrip timer (EPC count reaches zero, column 5, line 53), receiving a predetermined AMD PDU (Fig. 1, AMD PDU 14) before all negatively acknowledged AMD PDUs identified in the first status report are received at the receiver (EPC count reaches zero and not all the requested PUs have been received, column 5, lines 53-55); and

determining that a second status report (new S-PDU is transmitted and the EPC timer is restarted, column 5, lines 54-56) is required.

Regarding Claim 2, Johansson et al. discloses the method of claim 1, wherein the step of determining that a second status report (if the receiving side detects missing AM PDUs, the receiving side immediately transmits the status report to the transmitting side, column 6, lines 27-32) is required further comprises sending the second status report to the sender.

Regarding Claim 3, Johansson et al. discloses the method of claim 1, wherein determining that a second status report (receiving side immediately transmits the status report to the transmitting side after the EPC counter has expired, column 6, lines 28-32) is required further comprises: determining that a status report is not prohibited; and sending the second status report to the sender.

Regarding Claim 4, Johansson et al. discloses the method of claim 3, wherein determining that a status report is not prohibited (receiving side immediately transmits the status report to the transmitting side after the EPC counter has expired, column 6, lines 28-32) is performed by checking a status report prohibit timer (receiving side is not allowed to send status reports to the

peer entity while the T_{prohibit} timer is running, column 6, lines 54-56).

Regarding Claim 5, Johansson et al. discloses the method of claim 1, wherein duration of the roundtrip timer is set at least to a sum of a propagation delay (Table 2, plausibility check) and at least a processing time (Table 1, poll timer) of the sender or the receiver.

Regarding Claim 6, Johansson et al. discloses the method of claim 1, wherein duration of the roundtrip timer is set to at least a sum of the roundtrip propagation delay (Table 2, plausibility check), the processing time of the sender (Table 1, poll timer), and the processing time of the receiver (Table 3, T_{prohibit}).

Regarding Claim 7, Johansson et al. discloses the method of claim 1, wherein the predetermined AMD PDU is an AMD PDU not negatively acknowledged in the first status report (EPC counter expires before all the AM PDUs have been received, column 6, lines 19-21).

Regarding Claim 8, Johansson et al. discloses the method of claim 1, wherein the predetermined AMD PDU is an AMD PDU with a polling bit set (AMD PDU includes a polling bit, column 3, lines 62-63).

Regarding Claim 9, Johansson et al. discloses the method of claim 1, wherein the predetermined AMD PDU is the last negatively acknowledged AMD PDU in the first status report (trigger event when the transmitter polls the receiver for a status report and the last PDU

in the transmission buffer is transmitted, column 4, lines 28-31).

Regarding Claim 10, Johansson et al. discloses the method of claim 1, wherein the first trigger is detecting an expiration of a periodic timer (trigger event when the transmitter polls the receiver for a status report and sends a new poll to the receiver before the poll timer expires, column 4, lines 35-40).

Regarding Claim 11, Johansson et al. discloses the method of claim 1, wherein the first trigger is receiving an AMD PDU with a polling bit set (AMD PDU includes a polling bit, column 3, lines 62-63).

Regarding Claim 12, Johansson et al. discloses the method of claim 1, wherein the first trigger is detecting at least a missing AMD PDU (Table 3, if the receiving side detects missing AM PDUs, it transmits the status report immediately, column 6, lines 27-29).

Regarding Claim 13, Johansson et al. discloses the method of claim 1, wherein the first status report is current and the second status report is subsequent, the method further comprising iteratively repeating all steps taking the subsequent status report as the first status report (ARQ protocol allows the use of efficient retransmission between the sending and receiving sides by enabling the receiving side to correctly convey the PDUs and to respond accordingly, column 1, lines 38-44).

Regarding Claim 14, Johansson et al. discloses the method of claim 1, wherein the second status report contains an updated receiving status of the receiver (updating the transmission window according to the information received in the status report, column 5, lines 7-9).

Regarding Claim 15, Johansson et al. discloses the method of claim 1, wherein sending a first status report to the sender in response to a first trigger (function that can trigger when a transmitter polls the receiver for a status report by use of a poll timer, column 4, lines 35-36) further comprises: delaying sending a third status report to the sender in response to a second trigger (receiving side is delayed from sending a status report immediately to the transmitting side upon receipt of the poll, because the EPC counter is running, columns 5 ad 6, lines 66-67 and 1 respectively).

Regarding Claim 16, Johansson et al. discloses the method of claim 15, wherein the second trigger is an expiration of a periodic timer (trigger event when the transmitter polls the receiver for a status report and sends a new poll to the receiver before the poll timer expires, column 4, lines 35-40).

Regarding Claim 17, Johansson et al. discloses the method of claim 15, wherein after determining that a second status report (transmitting side transmits a new status report to the peer entity, column 6, lines 22-23) is required: receiving all negatively acknowledged AMD PDUs identified in the first status report; determining that the first status report is received by the sender; and sending the third status report (receiving side sends a status report immediately to the

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transmitting side upon receipt of the poll, but after the EPC counter has expired, columns 5 ad 6, lines 66-67 and 1-4 respectively) in response to the delayed second trigger.

Citation of Pertinent Prior Art

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Raith (Patent No.: US 6,611,688 B1) discloses position reporting method for a mobile terminal in a mobile communication network.

Wu (Pub. No.: 2007/0081511 A1) discloses method for handling status report prohibit timer after re-establishment in a wireless communications system.

Wu (Pub. No.: US 2007/0115912 A1) discloses method for handling periodic status report timer after an RLC reset in a wireless communications system.

Response to Arguments

3. Applicant's arguments filed March 13, 2008 have been fully considered, but they are not persuasive.

- In the remarks on pages 7-9 of the amendment, applicant contends that Johansson et al. fails to teach or disclose the limitations of claim 1 including initiating a round trip timer at the receiver, detecting and retransmitting AM PDUs , and that claim 1 is patentable over the cited art. Further, since claims 2-17 depend from claim 1, these claims are allowable. Applicant therefore request reconsideration and withdrawal of rejection of claims 1-17.

- The examiner respectfully disagrees and contends that **Regarding Claim 1**, Johansson et al. discloses a method (method, column 3, line 13) for determining a need of an updated status report (receiving side is polled and sends a status report, column 5, lines 42-43) by a receiver (Fig. 1, UE 16) in a communications system (communications system, column 1, lines 17-18), the communications system including a receiver (Fig. 1, UE 16) and a sender (Fig. 1, UE 12) wherein data is communicated by acknowledged mode data (AMD) protocol data units (PDUs) (Fig. 1, AMD PDU 14), the method comprising: the receiver: sending a first status report to the sender in response to a first trigger (receiving side sends a status report to the transmitting entity if the receiving side receives a poll (trigger), column 5, lines 42-43); initiating a roundtrip timer (receiver sends S-PDU to the transmitter and sets the EPC where the EPC timer controls the maximum amount of time that the EPC has to wait before it starts counting down, column 5, lines 49-52); after expiry of the roundtrip timer (EPC count reaches zero, column 5, line 53), receiving a predetermined AMD PDU (Fig. 1, AMD PDU 14) before all negatively acknowledged AMD PDUs identified in the first status report are received at the receiver (EPC count reaches zero and not all the requested PUs have been received, column 5, lines 53-55); and determining that a second status report (new S-PDU is transmitted and the EPC timer is restarted, column 5, lines 54-56) is required. Further, claims 2-17 which depends from claim 1 are not allowable. Thus, the rejection of claims 1-17 is not withdrawn.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Andrews whose telephone number is (571) 270-1801. The examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rao S. Seema can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Seema S. Rao/

Supervisory Patent Examiner, Art Unit
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November 2, 2007